

AMENDMENT UNDER 37 C.F.R. § 1.116
Application Serial No. 10/751,470
Attorney Docket No. Q79189

REMARKS

Upon entry of the present Amendment, claims 1-7 are all the claims pending in the application. Claims 1-3 are amended. No new matter is presented.

To summarize the Office Actions, claims 1, 2 and 7 have been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Morita (EP No. 0926675) in view of Del Genio et al (U.S. Patent No. 6,034,850, hereinafter Del Genio”) and admitted prior art (“APA”); claim 3 has been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Morita in view of Del Genio and admitted prior art, further in view of Martin et al. (U.S. Patent No. 5,868,338, hereinafter “Martin”); claims 4 and 5 have been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Morita in view of Tanaka et al. (U.S. Patent No. 5,180,118, hereinafter “Tanaka”); and claim 6 has been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Morita in view of Tanaka, further in view of Martin. The outstanding rejections are traversed and addressed as follows.

Claim Rejections - 35 U.S.C. § 103(a)

Morita in view of De Genio and APA

As noted above, claims 1, 2 and 7 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Morita in view of Del Genio et al and admitted prior art. Applicant submits that the claimed magnetic tape cartridge, as defined by these claims, would not have been *prima facie* obvious in view of the combined teachings of the applied art at least because

the combination fails to reasonably teach or suggest all the claimed features and the motivation to combine is impermissibly based on hindsight reasoning, as evidenced by the following.

Claim 1 defines a magnetic tape cartridge comprising, *inter alia*, a cartridge case, formed by fastening upper and lower cases of synthetic resin together, and having a tape leader opening formed in upper and lower side walls of said upper and said lower cases; a single tape reel having magnetic tape wound thereon and rotatably housed within said cartridge case; and a tape leader pin, firmly attached to a leading end of said magnetic tape, and detachably held in an upright state between said upper and lower cases so that said tape leader pin faces said tape leader opening. Claim 1 further recites the features of the tape leader pin has axially opposite flanges, a length of said tape leader pin is 18.7 mm; and the cartridge case has a thickness of 1.38 mm above and below the axially opposite flanges of the tape leader pin.

None of Morita, Del Genio, or the alleged APA teaches *at least* the features of the length of said tape leader pin is 18.7 mm and the claimed cartridge case thickness of 1.38 mm above and below the axially opposite flanges of the tape leader pin. Indeed, in the Office Action, the Examiner concedes that neither Morita nor Del Genio teaches the claimed length of the tape leader pin, but instead points to Fig. 7A and pages 17 and 18 of Applicant's Specification, which are alleged to teach a magnetic tape cartridge "having a width of 14 mm and a leader pin length of 19.46 mm." *See* Office Action at page 2.

In the previous Amendment of September 28, 2005, Applicant pointed out that that the combination of Morita, Del Genio and the alleged admitted prior art failed to teach or suggest the feature of "the length of the tape leader pin is 18.7 mm". In this regard, Applicant noted that the

prior art Figure 7A, which the Examiner relies upon, teaches a conventional pin body having a length of 19.46 mm, and would not have suggested any modification to the claimed length of 18.7 mm.

In response, the Examiner alleges that it would have been obvious to scale down the conventional tape cartridge, as shown in Figure 7A, such that the resulting leader pin length is 18.7 mm, in order to “provide a more compact tape cartridge”. In addition, the Examiner contends that it would have been an obvious matter of engineering choice to make the leader pin 18.7 mm long for use with conventional 14 mm wide tape “since this clearly gives adequate length to provide flanges to accommodate tape of this width.” Finally, the Examiner alleges that “no new and unexpected results are seen to have resulted from selection of a length of 18.7 mm for the leader pin...” *See* Office Action at page 3.

Applicant respectfully disagrees with the Examiner’s contention that modifying the prior cartridge, which has a leader pin length of 19.46 mm, to provide a leader pin length of 18.7 mm would have been obvious. Initially, Applicant notes that claim 1 is amended to further clarify that the cartridge case has a thickness of 1.38 mm above and below the axially opposite flanges of the tape leader pin. Thus, in accordance with an exemplary embodiment of the present invention, the thickness (i.e., length) of the upper flange portion of the leader pin may be reduced to provide a shorter leader pin length wherein the thickness is set at a value that does not reduce the leader-pin holding function of the leader-pin holding spring. *See* Specification at page 18.

The Examiner’s contention that it would have been obvious to scale down the conventional tape cartridge so that the leader pin is 18.7 mm long to provide a “more compact

tape cartridge” is wholly unsubstantiated by any objective teaching of the prior art. Rather, the conventional tape cartridge depicted in prior art Figure 7A is described as having a magnetic tape with a width of 14 mm, and the height of the cartridge is 21.5 mm. Also, Applicant notes that the cartridge height of 21.5 mm is a standard height for 14 mm tape cartridges. Thus, scaling down the tape cartridge, as the Examiner suggests, would render the tape cartridge unusable with conventional playback apparatuses, and cannot properly be considered an obvious modification without some objective evidence, which the Examiner has failed to provide.

Further, the Examiner’s allegation that making the leader pin 18.7 mm long would have been an obvious engineering choice because an 18.7 mm long leader pin is “adequately long to accommodate conventional 14 mm wide tape” likewise is not based on any objective teaching of the prior art that suggests modifying the conventional pin length of 19.46 mm. Rather, the Examiner relies solely on unsupported opinions that the modification would have been obvious. The Examiner’s unsupported allegations regarding “obvious engineering choice” is not a substitute for objective evidence to modify the actual disclosure of Morita in view of Del Genio and APA, which, as noted above, is clearly deficient with respect to the features of claim 1. Indeed, such conclusory allegations are insufficient to establish *prima facie* obviousness. *In re Zurko*, 258 F.3d 1380, 1386, 59 USPQ2d 1694, 1697 (Fed. Cir. 2001) (holding that general conclusions concerning what is “basic knowledge” or “common sense” to one of ordinary skill in the art without specific factual findings and some concrete evidence in the record to support these findings will not support an obviousness rejection); *In re Lee*, 277 F.3d 1338, 1343-1344, 61 USPQ2d 1430, 1434 (Fed. Cir. 2002) (stating that the “factual question of motivation is

material to patentability, and [can] not be resolved on subjective belief and unknown authority.”).

Shortening the leader pin length from the conventional length of 19.46 mm to 18.7 mm, as claimed and described in the specification in the exemplary embodiment discussed at pages 17-19, allows the thickness of the cartridge case to be increased as a result of the shorter pin length. Thus, the conventional thickness of the cartridge case above and below the axially opposite flanges is increased to 1.38 mm to enhance the strength of the cartridge case near the tape leader opening. Accordingly, Applicant respectfully disagrees with the Examiner’s contention that “no new and unexpected results are seen”.

As evidenced by the foregoing, the combination of Morita, Del Genio, and the prior art Figure 7 does not suggest *at least* the features of a tape leader pin length of 18.7 mm together with a cartridge case having a thickness of 1.38 mm above and below the axially opposite flanges of the tape leader pin, as defined by claim. Further, the Examiner has failed to provide any objective teaching to modify the actual disclosure of the references and the rejection is therefore impermissibly based on hindsight reasoning from knowledge gleaned from Applicant’s disclosure and not the teaching of the applied art. Therefore, reconsideration and withdrawal of the rejection of claim 1 is requested.

With respect to claim 2, Applicant submits that Morita, Del Genio and the APA fails to teach of suggest a leader-pin holding spring, as claimed, which is attached to said cartridge case near said tape leader opening and comprises a mounting portion that includes a rectangular plate and a pair of elastic arm portions, in which top and bottom edges of the mounting portion are

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provided with engagement recesses, respectively, wherein the tape leader pin is detachably held by said leader-pin holding spring that elastically abuts said axially opposite flanges in a horizontal direction. Morita, which the Examiner relied upon to teach a leader-pin as previously recited, does not suggest the feature of the mounting portion, as defined by claim 2. Accordingly, claim 2 should be allowed.

In addition, Applicant submits that claims 2-3 and 7 should be allowed at least by virtue of depending from claim 1.

Morita in view of Del Genio, APA, and Martin

Claim 3 stands rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Morita in view of Del Genio and admitted prior art, further in view of Martin. As noted above, claim 3 should be allowed at least by virtue of its dependency. Further, Applicant submits that the combination of Morita in view of Del Genio, APA, and Martin fails to teach or suggest at least the feature of “the U-shaped clip includes a connecting plate portion and a pair of leg portions bent at right angles in the same direction at both ends of the connecting plate portion”, as claimed.

In this regard, Applicant notes that the Examiner relies on Martin for an alleged teaching of a U-shaped clip, and points to projection inserts 112 or 118 of Martin. However, the projection inserts of Morita clearly fail to suggest a connecting plate portion and a pair of leg portions bent at right angles, as recited by claim 3. Accordingly, reconsideration and withdrawal of the rejection is requested.

Morita in view of Tanaka

Claims 4 and 5 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Morita in view of Tanaka et al. This ground of rejection is traversed.

With respect to claim 4, the Examiner contends that Morita teaches all the claim limitations except the feature of “metal reinforcement members are embedded in the upper and lower cases, respectively, near said tape leader opening, in which a first metal reinforcement member is provided above said tape leader pin and a second metal reinforcement member is provided below said tape leader pin.” However, the Examiner alleges that Tanaka teaches applying the metal reinforcing members without blocking a tape access opening in the cartridge. Further, the Examiner contends that “an ordinary artisan would appreciate the separate teaching of Tanaka relating to forming a strong composite tape cartridge structure.” *See* Office Action at page 7.

Applicant submits that the rejection of claim 4 is improper because the Examiner has not established *prima facie* obviousness. In this regard, Applicant notes Tanaka teaches a magnetic tape cassette in which side wall portions that come in direct contact with and are held by a tape holder of a recording-reproducing device are made of a pair of side members that are formed independently of the main body. *See* Tanaka at col. 3, lines 52-57. Tanaka further teaches that the side frame members may be made of a material with a low coefficient of friction, while the main body of the tape cassette is built of a high friction coefficient material such as an elastomer, to ensure smooth release of the tape cassette from the holder. *See* Tanaka at col. 7, lines 42-47.

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However, the cassette tape of Tanaka does not include a tape leader portion, as claimed, since Tanaka teaches a conventional cassette tape cartridge in which the tape is contained within the cassette housing during reproduction and recording. Moreover, Tanaka merely teaches side frame members that are attached to the top, bottom and side surfaces of the cassette housing. *See* Figures 6-8 of Tanaka. Tanaka does not teach that any reinforcement member provided near the opening of the tape cartridge where the tape is exposed. Indeed, the side frame members are provided on every side except the bottom portion where the tape exposure occurs.

Claim 4 recites that the metal reinforcement members are embedded above and below the tape leader pin, where the opening for the tape is provided. Tanaka not only does not suggest metal reinforcement members for a tape cartridge utilizing a tape leader pin, but it further does not suggest providing any reinforcement members where the tape itself is actually exposed to a recording or playback apparatus. Thus, Tanaka cannot properly be relied upon to teach metal reinforcement members above and below a tape leader pin, which is conceded by the Examiner to be deficient in Morita, and the Examiner's rejection is impermissibly based on hindsight reasoning.

Accordingly, reconsideration and withdrawal of the rejection is requested. Further, Applicant submits that claims 5 and 6 should be allowed at least by virtue of their dependency from claim 4.

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Morita in view of Tanaka, further in view of Martin

Claim 6 stands rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Morita in view of Tanaka, further in view of Martin. Without commenting substantively, Applicant submits that claim 6 is allowable at least by virtue of depending from claim 4.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

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